

FORM PTO-1449/A and B (modified PTO/SB/08)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

APPLICATION NO.: 10/594,806

ATTY. DOCKET NO.: C1005.70014US01

FILING DATE: September 28, 2006

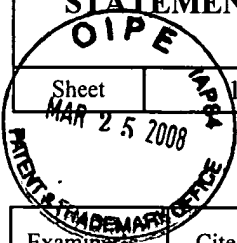
CONFIRMATION NO.: 2063

APPLICANT: Pykett et al.

GROUP ART UNIT: 1644

EXAMINER: Amy E. Juedes

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**U.S. PATENT DOCUMENTS**

Examiner's Initials #	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	A1	5,282,861		Kaplan	02-01-1994
	A2	5,342,774		Boon et al.	08-30-1994
	A3	5,443,950		Naughton et al.	08-22-1995
	A4	5,510,262		Stephanopoulos et al.	04-23-1996
	A5	5,541,107		Naughton et al.	07-30-1996
	A6	5,580,781		Naughton et al.	12-03-1996
	A7	5,635,386		Palsson et al	06-03-1997
	A8	5,635,387		Fei et al.	06-03-1997
	A9	5,677,139		Johnson et al.	10-14-1997
	A10	5,763,266		Palsson et al.	06-09-1998
	A11	5,785,964		Naughton et al.	07-28-1998
	A12	6,121,042		Peterson et al.	09-19-2000
	A13	6,440,734	B1	Pykett et al.	08-27-2002
	A14	6,548,299	B1	Pykett et al.	04-15-2003
	A15	6,645,489	B2	Pykett et al.	11-11-2003
	A16	6,991,933	B1	Upton et al.	01-31-2006
	A17	7,067,316	B2	Pykett et al.	06-27-2006
	A18	7,192,769	B2	Pykett et al.	03-20-2007
	A19	2003-0096404	A1	Pykett et al.	05-22-2003
	A20	2005-0079609	A1	Pykett et al.	04-14-2005
	A21	2006-0084170	A1	Pykett et al.	08-31-2006
	A22	2006-0194310	A1	Upton et al.	08-31-2006
	A23	2007-0148769	A1	Pykett et al.	06-28-2007

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	B1	EP	0 241 578	A2	Marrow Group International	10-21-1987	
	B2	EP	0 358 506	A2	Marrow-Tech Incorporated	03-14-1990	
	B3	EP	0 560 279	A1	Ultramet	09-15-1993	
	B4	WO	90/15877	A2	The Regents of the University of Michigan	12-27-1990	

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				GROUP ART UNIT: 1644		EXAMINER: Amy E. Juedes	
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	B5	WO	96/33265	A1	President and Fellows of Harvard College	10-24-1996	
	B6	WO	97/33978	A1	Life Technologies, Inc.	09-18-1997	
	B7	WO	99/15629	A1	Cytomatrix, LLC	04-01-1999	
	B8	WO	00/27999	A2	Cytomatrix, LLC	05-18-2000	
	B9	WO	01/11011	A2	Furcht et al.	02-15-2001	
	B10	WO	01/21760	A2	Cell Science Therapeutics	03-29-2001	
	B11	WO	01/21766	A2	Cell Science Therapeutics	03-29-2001	
	B12	WO	03/100010	A2	Cytomatrix, LLC	12-04-2003	
	B13	WO	03/075953	A2	Eli Lilly & Company	09-18-2003	
	B14	WO	2005/094353	A2	Cytomatrix LLC	10-13-2005	

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C1	ANDERSON et al., MHC class II-positive epithelium and mesenchyme cells are both required for T-cell development in the thymus. Nature. 1993 Mar 4;362(6415):70-3.	
	C2	ANDERSON et al., Cellular interactions in thymocyte development, Annul Rev Immunol 1996;14:73-99. Abstract Only.	
	C3	ANDERSON et al., Thymic epithelial cells provide unique signals for positive selection of CD4+CD8+ thymocytes in vitro, J Exp Med 1994 Jun 1; 179(6):2027-31. Abstract Only.	
	C4	BAECHER-ALLAN et al., CD4 ⁺ CD25 ^{high} Regulatory Cells in Human Peripheral Blood, J Immunol, 2001, 167:1245-1253.	
	C5	BAGLEY et al., Extended culture of multipotent hematopoietic progenitors without cytokine augmentation in a novel three-dimensional device. Exp Hematol. 1999 Mar;27(3):496-504.	
	C6	BAGLEY et al., Long-Term Three Dimensional hematopoietic Stem Cell Culture. Amer Chem Soc 126(1/03). Abstract.	
	C7	BANU et al., Cytokine-augmented culture of haematopoietic progenitor cells in a novel three-dimensional cell growth matrix. Cytokine. 2001 Mar 21;13(6):349-58.	
	C8	BERRIDGE, Lymphocyte activation in health and disease. Crit Rev Immunol. 1997;17(2):155-78. Abstract Only.	
	C9	BOBYN et al., Characteristics of bone ingrowth and interface mechanics of a new porous tantalum biomaterial. J Bone Joint Surg Br. 1999 Sep;81(5):907-14.	
	C10	BOYD et al., The thymic microenvironment. Immunol Today. 1993 Sep;14(9):445-59.	
	C11	CARTER et al., Regulation of T cell subsets from naïve to memory. J Immunother (1997). 1998 May;21(3):181-7. Abstract only.	
	C12	CLARK et al., IL-15 and dermal fibroblasts induce proliferation of natural regulatory T cells isolated from human skin. Blood. 2007 Jan 1;109(1):194-202. Abstract only.	
	C13	CLARK et al., A novel method for the isolation of skin resident T cells from normal and diseased human skin. J Invest Dermatol. 2006 May;126(5):1059-70.	

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Sheet	3	of	5		

	C14	CLAY et al., Potential use of T cell receptor genes to modify hematopoietic stem cells for the gene therapy of cancer. Pathol Oncol Res. 1999;5(1):3-15. Abstract Only.	
	C15	COBBOLD et al., mechanisms of peripheral tolerance and suppression induced by monoclonal antibodies to CD4 and CD8, Immunol Rev 1996 Feb; 149:5-33. Abstract Only.	
	C16	COHEN et al., A highly porous, open-celled, tantalum implant material for bone in growth applications, 8 th annual International Symposium on Technology in Arthroplasty, 1995 Sep 27-Oct 1, Puerto Rico.	
	C17	DUBOIS B. et al., Innate CD4 ⁺ CD25 ⁺ regulatory T cells are required for oral tolerance and inhibition of CD8 ⁺ T cells mediating skin inflammation, Blood, 2003; 102:3295-301.	
	C18	FAUCI et al., Activation and regulation of human immune responses: implications in normal and disease states. Ann Intern Med. 1983 Jul;99(1):61-75. Abstract Only.	
	C19	FISHER et al., Human thymocyte development in mouse organ cultures. Int Immunol. 1990;2(6):571-8. Abstract Only.	
	C20	FOWELL et al., The role of subsets of CD4 ⁺ T cells in autoimmunity. Ciba Found Symp. 1995;195:173-82; discussion 182-8. Abstract Only.	
	C21	FREEDMAN et al., Generation of human T lymphocytes from bone marrow CD34 ⁺ cells in vitro. Nat Med. 1996 Jan;2(1):46-51.	
	C22	GARDNER et al., T-lymphopoietic capacity of cord blood-derived CD34 ⁺ progenitor cells. Exp Hematol. 1998 Sep;26(10):991-9.	
	C23	GROSS, D A et al., CD4 ⁺ CD25 ⁺ regulatory T cells inhibit immune-mediated transgene rejection, Blood 2003; 102:4326-28.	
	C24	JENKINSON et al., T-cell differentiation in thymus organ cultures, Semin Immunol 1990 Jan; 2(1):51-8. Abstract Only.	
	C25	JOHNSON et al., The role of antimyosin antibodies in acute myocardial infarction. Semin Nucl Med. 1989 Jul;19(3):238-46.	
	C26	KIM et al., Effects of recombinant human bone morphogenetic protein-2 on human bone marrow cells cultured with various biomaterials. J Biomed Mater Res. 1997 Jun 5;35(3):279-85.	
	C27	KRENSKY et al., Immunologic tolerance: tailored antigen, Transplant Proc 1996 Aug; 28(4):2075-7. Abstract Only.	
	C28	KUHN et al., In vitro differentiation of human lymphocytes in a porcine microenvironment: implication for xenogeneic organ transplantation. Transplant Proc. 2000 Aug;32(5):1043-4.	
	C29	LEVINGS et al., Human CD25 ⁺ CD4 ⁺ T regulatory cells suppress naïve and memory T cell proliferation and can be expanded in vitro without loss of function, J. Experimental Medicine. 2001 June 4, 193(11):1295-1301	
	C30	LEINONEN et al., Circulating immune complexes containing chlamydial lipopolysaccharide in acute myocardial infarction. Microb Pathog. 1990 Jul;9(1):67-73. Abstract Only.	
	C31	MARSHALL et al., T cell generation including positive and negative selection ex vivo in a three-dimensional matrix. J Hematother Stem Cell Res. 2003 Oct;12(5):565-74.	
	C32	MARTIN et al., Suppression of CD4 ⁺ T Lymphocyte Effector Functions by CD4 ⁺ CD25 ⁺ Cells In Vivo, J. Immunol., 2004, 172:3391-8	
	C33	MCCARTHY et al., Artificial thymus can produce T-cells. Lancet. 2000 Jul 1;356(9223):48.	
	C34	MONTALBAN et al., Antiphospholipid antibodies in cerebral ischemia. Stroke. 1991 Jun;22(6):750-3. Abstract Only.	

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	C35	NAUGHTON et al., Three-dimensional bone marrow cell and tissue culture system. Biotech Adv. 1997;15(2):401. Abstract 5541107.	
	C36	NAUGHTON et al., A three-dimensional culture system for the growth of hematopoietic cells. Prog Clin Biol Res. 1990;333:435-45. Abstract Only.	
	C37	NELSON et al., IL-2 Regulatory T Cells, and Tolerance, J. Immunol, 2004, 172:3983-8.	
	C38	NG et al., Human CD ⁺ CD25 ⁺ cells: a naturally occurring population of regulatory T cells, Blood, 2001; 98:2736-44.	
	C39	OWEN et al. Regulatory factors in lymphoid development. Br Med Bull. 1989 Apr;45(2):350-60. Abstract Only.	
	C40	OWEN et al., Signalling in lymphocyte development. Curr Opin Immunol. 1996 Apr;8(2):191-8. Abstract Only.	
	C41	OWEN et al, Thymocyte-stromal-cell interactions and T-cell selection, Immunol Today 1995 Jul; 16(7):336-8. Abstract Only.	
	C42	PAWELEC et al., Extrathymic T cell differentiation in vitro from human CD34+ stem cells. Leukoc Biol. 1998 Dec;64(6):733-9.	
	C43	PORTER et al., A tissue of T cells. Nat Biotechnol. 2000 Jul;18(7):714-5.	
	C44	POZNANSKY et al., Efficient generation of human T cells from a tissue-engineered thymic organoid. Nat Biotechnol. 2000 Jul;18(7):729-34.	
	C45	POZNANSKY et al., Tissue source dictates lineage outcome of human fetal CD34(+)CD38(-) cells. Exp Hematol. 2001 Jun;29(6):766-74.	
	C46	ROSENZWEIG et al., T-cell differentiation of human and non-human primate CD34+ hematopoietic progenitor cells using porcine thymic stroma. Xenotransplantation. 2001 Aug;8(3):185-92.	
	C47	ROSENZWEIG et al., Enhanced maintenance and retroviral transduction of primitive hematopoietic progenitor cells using a novel three-dimensional culture system. Gene Ther. 1997 Sep;4(9):928-36.	
	C48	ROSENZWEIG et al., In vitro T lymphopoiesis of human and rhesus CD34+ progenitor cells. Blood. 1996 May 15;87(10):4040-8.	
	C49	ROSENZWEIG et al., In vitro T lymphopoiesis: a model system for stem cell gene therapy for AIDS. J Med Primatol. 1996 Jun;25(3):192-200.	
	C50	SINHA et al., Autoimmune diseases: the failure of self tolerance. Science. 1990 Jun 15;248(4961):1380-8. Abstract Only.	
	C51	SPRENT, Central tolerance of T cells, Int Rev Immunol 1995; 13(2):95-105. Abstract Only.	
	C52	STACKPOOL et al., Characterization of Bone Ingrowth with a unique porous tantalum implant material, 42 nd Annual Meeting, Orthopaedic Research Society, 1996, Feb 19-22, Atlanta GA. 524.	
	C53	STACKPOOL GJ et al., Bone Ingrowth characteristics of porous tantalum a new material for orthopaedic implants, Combined Orthopaedic Research Societies Meeting, 1995, Nov 6-8, San Diego, CA. 45.	
	C54	STREILEIN et al., Immune privilege, T-cell tolerance, and tissue-restriction autoimmunity, Human Immunol 1997 Feb; 52(2):138-43. Abstract Only.	
	C55	SUVAS et al., CD4 ⁺ CD25 ⁺ Regulatory T Cells Control the Severity of Viral Immunoinflammatory Lesions, J. Immunol, 2004 172:4123-32.	

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Sheet	5	of	5		

C56	TURNER TM et al., Evaluation of Tantalum Foam, A Novel porous material, for bone ingrowth fixation using a canine model, 21 st Annual meeting of the Society for Biomaterials 1995, Mar 18-22, San Francisco, CA, 125.	
C57	VAN EWIK, T-cell differentiation is influenced by thymic microenvironments. Annu Rev Immunol. 1991;9:591-615.	
C58	VAN PARIJS et al., Mechanisms of peripheral T cell tolerance, Novartis Found Symp 1998; 215:5-14; discussion 14-20, 33-40. Abstract Only.	
C59	VAN VLIET et al., Stromal cell types in the developing thymus of the normal and nude mouse embryo. Eur J Immunol. 1985 Jul;15(7):675-81.	
C60	VEHOF et al., Ectopic bone formation in titanium mesh loaded with bone morphogenetic protein and coated with calcium phosphate. Plast Reconstr Surg. 2001 Aug;108(2):434-43.	
C61	VIGOUROUX et al., Antigen-induced regulatory T cells. Blood. 2004 Jul 1;104(1):26-33. Epub 2004 Mar 16.	
C62	WANG et al., Multilineal hematopoiesis in a three-dimensional murine long-term bone marrow culture. Exp Hematol. 1995 Jan;23(1):26-32.	
C63	WEIGLE et al., Immunologic tolerance: development and disruption, Hosp Pract (Off Ed) 1995 Feb 15; 30(2):81-4, 89-92. Abstract Only.	
C64	WHITFIELD et al., The regulation of cell proliferation by calcium and cyclic AMP. Mol Cell Biochem. 1979 Nov 1;27(3):155-79. Abstract Only.	
C65	WOOD, New concepts in tolerance, Clin Transplant 1996 Feb; 10(1 Pt 2):93-9. Abstract Only.	
C66	WOOD et al., Regulatory T cells in transplantation tolerance. Nat Rev Immunol. 2003 Mar;3(3):199-210.	

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. __, filed __, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

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